

# Crestron RACK2™

## Dual Bus Control System with Solutions Card Frame



The RACK2 is a completely new solution-driven control technology that's also a network information control system. With its exclusive Solutions Card Frame and built-in Cresnet Expander Hub, it's the highly configurable solution for even the most sophisticated AV applications like media help desks, command and control centers, distance learning, and head ends.

At the heart of the RACK2 is the breakthrough 2-Series Control Engine, based on the hot new 257 MIPS, 32-bit Motorola ColdFire® processor. Onboard 34MB memory is enhanced with a 4GB expansion slot that supports off-the-shelf Type II compact flash memory and the IBM Microdrive® hard disk drive, for on-board storage of program and touch-panel files, room and equipment profiles, upgrades, databases and schedules.

Crestron's unique Dual Bus system, with its high-speed I/O bus architecture, provides blazing fast throughput, system wide. This Dual Bus architecture allows the ultimate in control card custom configuration, and also lets you upgrade to new, higher performance expansion cards while still using your existing cards and software programs. The 40Mb/s Y-Bus supports up to 12, CNX and 2-Series control cards in its Solutions Card Frame and serves as the pipeline for IR, serial communications and relays. And the 300Mb/s Z-Bus is designed to support up to 4 super high speed expansion cards for applications such as 10/100 Ethernet, and future USB, USBII, FireWire, disk drive arrays and more.

The RACK2 also provides true secure network communications required for today's corporate networks and the Internet with a variety of plug-in 10/100 Ethernet cards. The dual port Ethernet card

has a built-in Firewall delivers the ultimate in security with on-board Network Address Translator (NAT) and Router functions. It supports dynamic and static IP addressing and full duplex TCP/IP and UDP/IP, and offers a WAN port for Internet and Corporate-wide communications and a LAN port for Room and AV Private Network use. The built-in Web Server provides the ultimate in help desk functions, and uses memory storage on a compact flash card for remote access and control.

The built-in 8-port Cresnet Expander Hub serves as a repeater, splitter and wiring block. It allows the connection of hundreds of additional controlled devices and extended network cabling runs.

The 2-Series real-time operating system is vastly upgraded, yet compatible with existing Crestron software and programming. A key feature is the new Crestron Compiler, which allows any existing Crestron SIMPL™ Windows® control program to be easily recompiled for the 2-Series. The real-time, preemptive multi-tasking/multi-threaded operating system offers a FAT32 file system with long file names for easy and open file management. And the enhanced SIMPL+™ instruction set is also fully compatible with existing Crestron SIMPL™ Windows® and SIMPL+™ programs.

With its blinding speed, massive memory and revolutionary Dual Bus architecture, the RACK2 is built from the ground up for high performance, secure Internet communications and Dynamic Expansion Capabilities. Designed for reliability and reinforced by Crestron's True Blue Customer Support, it's part of the complete Crestron line of advanced solutions for audio/video/Internet distribution and control.



# Crestron RACK2™ Dual Bus Control System with Solutions Card Frame

## Processor

- **CPU:** 32-bit Motorola 5407 ColdFire® Processor
- **Processing Speed:** 257 MIPS (Dhrystone 2.1 benchmark)

## Memory

- **On-board Memory:** 34MB
- **Expandable Memory:** Compact Flash slot (up to 4GB) accessible on rear panel accepts standard Type II Compact Flash or IBM Microdrive®

## Dual Bus Architecture

### Y-Bus:

- **40 Mb/s parallel communications**
- **Built-in 12-slot Solutions Card Frame** supports Crestron's existing CNX and 2-Series expansion cards in order to configure the RACK2 for IR/Serial ports, I/O Versiports, RS-232/422/485, relays, etc.

### Z-Bus:

- **300 Mb/s parallel communications**
- **4 expansion card slots.** Optional cards include:
  - **C2ENET-1:** Single Port 10/100 BaseT Ethernet
  - **C2ENET-2:** Dual Port WAN-LAN-10/100 BaseT Ethernet
  - Future Support for USB, USB II, FireWire, Disk Drive Array

## Cresnet Expander Hub

- **8-Port CNXHUB** serves as repeater, splitter and wiring block

## Computer console

1 RS-232 port (accessible from front or rear panel), 9-pin DB9 for programming with a PC

## Cresnet port

1 4-pin male connector, expandable via optional Cresnet Network Accelerator, which increases the effective network speed, fan-out and device addresses by a factor of 8 for each poll accelerator added to the system.

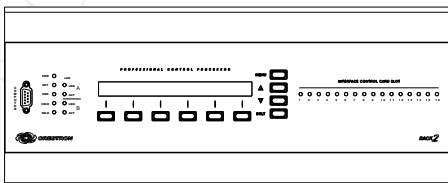
## Ethernet (w/optional C2ENET-1/2)

- **10/100 BaseT Ethernet**
  - Built-in Firewall for ultimate security
  - Dynamic/static IP and full duplex TCP/IP, UDP/IP, SMTP
  - Built-in Router
  - Built-in Network Address Translator (NAT)
  - Built-in Web Server: Memory storage on Compact Flash Card

## Operating System

- Real-time, preemptive, multitasking kernel
- Multi-threaded
- FAT32 file system with long names
- Fully compatible with existing SIMPL™ Windows® and SIMPL+™ programs
- Enhanced SIMPL+ instruction set

RACK2 Front View



## Screen

Reverse mode (yellow and black) LCD back light; 2 lines, 40 characters per line

## Menu Function Buttons

**PANEL:** Programmable interface offering command text, indirect text, and hierarchical screen structure

**INFO:** Displays system information including the loaded SIMPL™ program

**MSG:** Displays system alarms and error messages

**TIME:** Permits alterations to system date and time; access code required

**COM:** Monitors the transmission and reception traffic on each COM port

## Menu Selection Buttons

**MENU:** Returns screen display to menu default state

▲: Advances the current screen display

▼: Returns the current screen display to its previous state

**BKLT:** Alters screen and LCD brightness

## Reset Buttons

**HW-R:** Performs physical reset of system

**SW-R:** Restarts SIMPL program

## LED Indicators

**PWR:** Indicates power supplied to the unit

**NET:** Indicates activity within the system

**ERR:** Indicates an error message is available from the software feature buttons

**LNK A:** Indicates attachment to LAN (port 1 of Z-Bus card)

**ACT A:** Indicates communication over LAN (port 1 of Z-Bus card)

**LNK B:** Indicates attachment to LAN (port 2 of Z-Bus card, if dual port card inserted)

**ACT B:** Indicates communication over LAN (port 2 of Z-Bus card, if dual port card inserted)

**SLOT (1-16):** Illuminates when card is inserted into slot; flashes when card is active

## Power Requirements

24VDC; requires CNPWS-75 (purchased separately)

## Dimensions

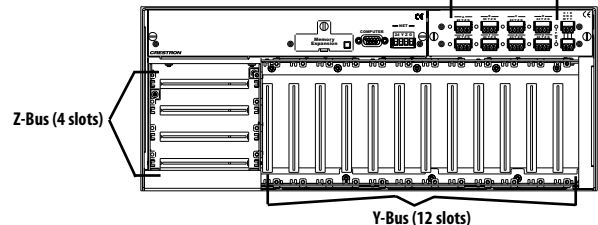
7.00" / 17.8cm (H) x 19.00" / 48.26cm (W) x 8.50" / 21.6cm (D)

## Weight

9.5lbs./4.3kg

RACK2 Rear View

8-Port Cresnet Expander Hub



NEW YORK  
LOS ANGELES  
ATLANTA  
DALLAS

CHICAGO  
TORONTO  
MEXICO CITY  
BRUSSELS

MUNICH  
LONDON  
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BEIJING  
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